

Figure 1 A

ATGGAGGTACAGTTAGGGCTAGGGAGGGTCTACCCCGGCCCGCCGTCCAGACCTATCGA 60
M E V Q L G L G R V Y P R P P S K T Y R

GGAGCTTTCCAGAACCTGTTCCAGAGTGTGCGGAGGTGATCCAGAACCCGGGCCCCAGG 120
G R F Q N L F Q S V R E V I Q N P G P R

CACCCTGAGGCCGTGAGCGCAGCACCTCCCGGTGCCCATTTGCAGCAGCAGCAGCAGCAG 180
H P E A V S A A P P G A H L Q Q Q Q Q Q

CAGCAGCAGCAGGAGACCAGTCTCGGCAGCAGCAGCAGCAGCAGCAGCAGGGTGACGATGGC 240
Q Q Q Q E T S P R Q Q Q Q Q Q Q G D D G

TCTCCCAAGCGCAGAGCAGAGGGCCCCACAGGCTACCTGGCTCTGGATGAGGAACAGCAG 300
S P Q A Q S R G P T G Y L A L D E E Q Q

CCTTCCCAACAGCGGTACGCTCCAGGGCCATCCGGAGAGTGCCCTGCGTTCCAGAGCCT 360
P S Q Q R S A S K G H P E S A C V P E P

GGAGTGACTTCGGCCACCGGCAGGGGGCTGCAGCAGCAGCAGCCAGCACCACCGGACGAG 420
G V T S A T G K G L Q Q Q Q P A P P D E

AATGACTCAGCTGCCCCATCCACATTGTCACTGCTGGGCCCCACTTTCCGGGGCTTAAGT 480
N D S A A P S T L S L L G P T F P G L S

AGCTGTTCCACCGATCTTAAGACATCCTGAGCGAGGCTGGAAACCATGCAACTCCTTCAG 540
S C S T D L K D I L S E A G T M Q L L Q

CAGCAGCGGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAA 600
Q Q R Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q

CAGCAGGAGGTAGTATCAGAAGGTAGCAGCAGCGGGAGAGCAGGGAGGGCCCGCGGTGCT 660
Q Q E V V S E G S S S G R A A R E A A G A

TCCACCTCCTCCAGGACAGTTACCTAGGTGGCAGTTCCGACCATCTCGGACAGCGCCAG 720
S T S S K D S Y L G G S S T I S D S A K

GAGTTGTGTAAGGCAGTGTGCGGTGTCCATGGGTTTGGGTGTGGAGGCATTGGAAACATCTG 780
E L C K A V S V S M G L G V E A L E H L

AGCCCTGGGGAACAGCTTCGGGGGGATTGTATGTACGCCCCGCTCCTGGGAGGTCCACCC 840
S P G E Q L R G D C M Y A P L L G G P P

GCCGTACGTCTTGCCTCCGCTGGCCGAATGCAAGGTTCTCTGCTGGATGACGGCCCCG 900
A V R P C A P L A E C K G S L L D D G P

CCCTTCCTCCAGGACAGTTACCTAGGTGGCAGTTCCGACCATCTCGGACAGCGCCAG

Figure 9. The effect of the initial concentration of the monomer on the polymerization of *l*-lysine. The reaction conditions were: $[H_2O] = 100$ g/L, $[K_2S_2O_8] = 0.005$ g/L, $[K_2CO_3] = 0.005$ g/L, $[K_2HPO_4] = 0.005$ g/L, $[K_2H_2P_2O_7] = 0.005$ g/L, $[K_2H_6P_7O_{24}] = 0.005$ g/L, $[K_2H_8P_9O_{26}] = 0.005$ g/L, $[K_2H_{10}P_{11}O_{28}] = 0.005$ g/L, $[K_2H_{12}P_{13}O_{30}] = 0.005$ g/L, $[K_2H_{14}P_{15}O_{32}] = 0.005$ g/L, $[K_2H_{16}P_{17}O_{34}] = 0.005$ g/L, $[K_2H_{18}P_{19}O_{36}] = 0.005$ g/L, $[K_2H_{20}P_{21}O_{38}] = 0.005$ g/L, $[K_2H_{22}P_{23}O_{40}] = 0.005$ g/L, $[K_2H_{24}P_{25}O_{42}] = 0.005$ g/L, $[K_2H_{26}P_{27}O_{44}] = 0.005$ g/L, $[K_2H_{28}P_{29}O_{46}] = 0.005$ g/L, $[K_2H_{30}P_{31}O_{48}] = 0.005$ g/L, $[K_2H_{32}P_{33}O_{50}] = 0.005$ g/L, $[K_2H_{34}P_{35}O_{52}] = 0.005$ g/L, $[K_2H_{36}P_{37}O_{54}] = 0.005$ g/L, $[K_2H_{38}P_{39}O_{56}] = 0.005$ g/L, $[K_2H_{40}P_{41}O_{58}] = 0.005$ g/L, $[K_2H_{42}P_{43}O_{60}] = 0.005$ g/L, $[K_2H_{44}P_{45}O_{62}] = 0.005$ g/L, $[K_2H_{46}P_{47}O_{64}] = 0.005$ g/L, $[K_2H_{48}P_{49}O_{66}] = 0.005$ g/L, $[K_2H_{50}P_{51}O_{68}] = 0.005$ g/L, $[K_2H_{52}P_{53}O_{70}] = 0.005$ g/L, $[K_2H_{54}P_{55}O_{72}] = 0.005$ g/L, $[K_2H_{56}P_{57}O_{74}] = 0.005$ g/L, $[K_2H_{58}P_{59}O_{76}] = 0.005$ g/L, $[K_2H_{60}P_{61}O_{78}] = 0.005$ g/L, $[K_2H_{62}P_{63}O_{80}] = 0.005$ g/L, $[K_2H_{64}P_{65}O_{82}] = 0.005$ g/L, $[K_2H_{66}P_{67}O_{84}] = 0.005$ g/L, $[K_2H_{68}P_{69}O_{86}] = 0.005$ g/L, $[K_2H_{70}P_{71}O_{88}] = 0.005$ g/L, $[K_2H_{72}P_{73}O_{90}] = 0.005$ g/L, $[K_2H_{74}P_{75}O_{92}] = 0.005$ g/L, $[K_2H_{76}P_{77}O_{94}] = 0.005$ g/L, $[K_2H_{78}P_{79}O_{96}] = 0.005$ g/L, $[K_2H_{80}P_{81}O_{98}] = 0.005$ g/L, $[K_2H_{82}P_{83}O_{100}] = 0.005$ g/L, $[K_2H_{84}P_{85}O_{102}] = 0.005$ g/L, $[K_2H_{86}P_{87}O_{104}] = 0.005$ g/L, $[K_2H_{88}P_{89}O_{106}] = 0.005$ g/L, $[K_2H_{90}P_{91}O_{108}] = 0.005$ g/L, $[K_2H_{92}P_{93}O_{110}] = 0.005$ g/L, $[K_2H_{94}P_{95}O_{112}] = 0.005$ g/L, $[K_2H_{96}P_{97}O_{114}] = 0.005$ g/L, $[K_2H_{98}P_{99}O_{116}] = 0.005$ g/L, $[K_2H_{100}P_{101}O_{118}] = 0.005$ g/L, $[K_2H_{102}P_{103}O_{120}] = 0.005$ g/L, $[K_2H_{104}P_{105}O_{122}] = 0.005$ g/L, $[K_2H_{106}P_{107}O_{124}] = 0.005$ g/L, $[K_2H_{108}P_{109}O_{126}] = 0.005$ g/L, $[K_2H_{110}P_{111}O_{128}] = 0.005$ g/L, $[K_2H_{112}P_{113}O_{130}] = 0.005$ g/L, $[K_2H_{114}P_{115}O_{132}] = 0.005$ g/L, $[K_2H_{116}P_{117}O_{134}] = 0.005$ g/L, $[K_2H_{118}P_{119}O_{136}] = 0.005$ g/L, $[K_2H_{120}P_{121}O_{138}] = 0.005$ g/L, $[K_2H_{122}P_{123}O_{140}] = 0.005$ g/L, $[K_2H_{124}P_{125}O_{142}] = 0.005$ g/L, $[K_2H_{126}P_{127}O_{144}] = 0.005$ g/L, $[K_2H_{128}P_{129}O_{146}] = 0.005$ g/L, $[K_2H_{130}P_{131}O_{148}] = 0.005$ g/L, $[K_2H_{132}P_{133}O_{150}] = 0.005$ g/L, $[K_2H_{134}P_{135}O_{152}] = 0.005$ g/L, $[K_2H_{136}P_{137}O_{154}] = 0.005$ g/L, $[K_2H_{138}P_{139}O_{156}] = 0.005$ g/L, $[K_2H_{140}P_{141}O_{158}] = 0.005$ g/L, $[K_2H_{142}P_{143}O_{160}] = 0.005$ g/L, $[K_2H_{144}P_{145}O_{162}] = 0.005$ g/L, $[K_2H_{146}P_{147}O_{164}] = 0.005$ g/L, $[K_2H_{148}P_{149}O_{166}] = 0.005$ g/L, $[K_2H_{150}P_{151}O_{168}] = 0.005$ g/L, $[K_2H_{152}P_{153}O_{170}] = 0.005$ g/L, $[K_2H_{154}P_{155}O_{172}] = 0.005$ g/L, $[K_2H_{156}P_{157}O_{174}] = 0.005$ g/L, $[K_2H_{158}P_{159}O_{176}] = 0.005$ g/L, $[K_2H_{160}P_{161}O_{178}] = 0.005$ g/L, $[K_2H_{162}P_{163}O_{180}] = 0.005$ g/L, $[K_2H_{164}P_{165}O_{182}] = 0.005$ g/L, $[K_2H_{166}P_{167}O_{184}] = 0.005$ g/L, $[K_2H_{168}P_{169}O_{186}] = 0.005$ g/L, $[K_2H_{170}P_{171}O_{188}] = 0.005$ g/L, $[K_2H_{172}P_{173}O_{190}] = 0.005$ g/L, $[K_2H_{174}P_{175}O_{192}] = 0.005$ g/L, $[K_2H_{176}P_{177}O_{194}] = 0.005$ g/L, $[K_2H_{178}P_{179}O_{196}] = 0.005$ g/L, $[K_2H_{180}P_{181}O_{198}] = 0.005$ g/L, $[K_2H_{182}P_{183}O_{200}] = 0.005$ g/L, $[K_2H_{184}P_{185}O_{202}] = 0.005$ g/L, $[K_2H_{186}P_{187}O_{204}] = 0.005$ g/L, $[K_2H_{188}P_{189}O_{206}] = 0.005$ g/L, $[K_2H_{190}P_{191}O_{208}] = 0.005$ g/L, $[K_2H_{192}P_{193}O_{210}] = 0.005$ g/L, $[K_2H_{194}P_{195}O_{212}] = 0.005$ g/L, $[K_2H_{196}P_{197}O_{214}] = 0.005$ g/L, $[K_2H_{198}P_{199}O_{216}] = 0.005$ g/L, $[K_2H_{200}P_{201}O_{218}] = 0.005$ g/L, $[K_2H_{202}P_{203}O_{220}] = 0.005$ g/L, $[K_2H_{204}P_{205}O_{222}] = 0.005$ g/L, $[K_2H_{206}P_{207}O_{224}] = 0.005$ g/L, $[K_2H_{208}P_{209}O_{226}] = 0.005$ g/L, $[K_2H_{210}P_{211}O_{228}] = 0.005$ g/L, $[K_2H_{212}P_{213}O_{230}] = 0.005$ g/L, $[K_2H_{214}P_{215}O_{232}] = 0.005$ g/L, $[K_2H_{216}P_{217}O_{234}] = 0.005$ g/L, $[K_2H_{218}P_{219}O_{236}] = 0.005$ g/L, $[K_2H_{220}P_{221}O_{238}] = 0.005$ g/L, $[K_2H_{222}P_{223}O_{240}] = 0.005$ g/L, $[K_2H_{224}P_{225}O_{242}] = 0.005$ g/L, $[K_2H_{2$

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2
--	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	---

TCTTGTGCGCTCCGGAATGCTATGAAGCAGGGATGACTCTGGGAGCCCGGAAGCTAAG S C R L R K C Y E A G M T L G A R K L K	1860
AAACTGGGGAATCTGAARCTGCAGAGGGAAGGAGAGGCTTCCAATGTCACCAAGCCCCACT K L G N L K L Q E E G E A S N U T S P T	1920
GAGGAGCCACCCAGAAGCTGACGGTGTACACATTGAAGGCTATGAGTGTGAGCCCATC E E P T Q K L T U S H I E G Y E C Q P I	1980
TTTCTGAATGTCCTTGAAGCCATCGAGCCAGGCGTGGTGTGTGCTGGACATGACACACAC F L N U L E A I E P G U U C A G H D N N	2040
CAGCCCGACTCCTTTGCAGCCTTGCTCTCTAGCCTTAATGAATTGGGTGAAGGCAGCTT Q P D S F A A L L S S L N E L G E R Q L	2100
GTACATGTGGTCAAGTGGGCCAAGGCCTTGCCGGGCTTCCGCACCTGCACGTGGATGAC U H U U K W A K A L P G F R N L H U D D	2160
CAGATGGCAGTCATTCACTACTCCTGGATGGGGCTCATGGTGTGTTGCCATGGGCTGGCGA Q M A U I Q Y S W M G L M U F A M G W R	2220
TCCTTCACCAATGTCAACTCCAGGATGCTCTACTTCGCCCCCTGACCTGGTTTTCAATGAG S F T N U N S A M L Y F A P D L U F N E	2280
TACCGCATGCACAAGTCCCGGATGTACAGCCAGTGTGTCCGAATGAGGCACCTCTCTCAA Y R M H K S A M Y S Q C U R M A H L S Q	2340
GAAATTTGGATGGCTCCAATCACCCCGCAGGAATTTTTGTGCATGAAGGCGCTGCTGCTA E F G W L Q I T P Q E F L C M K A L L L	2400
TTCAAGCATTATTCCAGTGGATGGGCTGAAAAATCAAAAATTCTTTGATGAACTTCGAATG F S I I P U D G L K N Q K F F D E L A M	2460
AACTACATCAAGGAACCTTGATCGTATCATTGCTTGCAAGAGAAAAAATCCACATCCTGC N Y I K E L D R I I A C K R K N P T S C	2520
TCAAGGCGCTTCTACCAAGCTCACCAGCTCCTGGACTCTGTGCACCTATTGCTCGAGAG S R R F Y Q L T K L L D S U Q P I A R E	2580
CTGCATCAGTTCACTTTTGACCTGCTAATCAAGTCCACATGGTGAGCGTGGACTTTCCA L H Q F T F D L L I K S H M U S U D F P	2640
GAAATGATGGCAGAAATCATCTCCGTGCAGTGCCCAAGATTCTTTCTGGGAAGTCAG E M M A E I I S U O U P K I L S G K U K	2700

Figure 1 D

TCTTGTGCCTCCGGAAATGCTATGAGCAGGGATGACTCTGGGAGCCCGGAAGCTAAG	1860
S C R L R K C Y E A G M T L G A R K L K	
AAACTGGGGAAATCTGAAACTGCAAGAGGAAGGAGAGGCTTCCAATGTCACCAGCCCCACT	1920
K L G N L K L Q E E G E A S N U T S P T	
GAGGAGCCARCCCGAAGCTGACGGTGTACACATTGAAGGCTATGAGTGTACGCCCATC	1980
E E P T Q K L T V S H I E G Y E C Q P I	
TTTCTGAATGTCTTGAAGCCATCGAGCCAGGCGTGGTGTGTGCTGGACATGACAACAAC	2040
F L N U L E A I E P G U U C A G H D N N	
CAGCCCGACTCCTTTGACGCCCTTGCTCTCTAGCCTTAATGAATTGGGTGAAGGCGAGCTT	2100
Q P D S F A R A L L S S L N E L G E R Q L	
GTACATGTGGTCAAGTGGGCCAAGGCCCTTGCCGGGCTTCCGCAACCTGCACGTGGATGAC	2160
U H U U K W A K A L P G F R N L H U D D	
CAGATGGCAGTCATTCACTACTCCTGGATGGGGCTCATGGTGTGTTGCCATGGGCTGGCGA	2220
Q M A U I Q Y S W M G L M U F A M G W R	
TCCTTCACCAATGTCAACTCCAGGATGCTCTACTTCGCCCTGACCTGGTTTTCAATGAG	2280
S F T N U N S R M L Y F A P D L U F N E	
TACCGCATGCACAGTCCCGGATGTACAGCCAGTGTGTCCGAATGAGGCACCTCTCTCAA	2340
Y R M H K S R M Y S Q C U R M R H L S Q	
GAATTTGGATGGCTCCAATCACCCCGCAGGAATTTTTGTGCATGAGGCGCTGCTGCTA	2400
E F G W L Q I T P Q E F L C M K A L L L	
TTCAAGCATTATTCCAGTGGATGGGCTGAAAAATCAAAAATTCTTTGATGAACCTTCAATG	2460
F S I I P U D G L K N Q K F F D E L R M	
AACTACATCAAGGAACCTTGATCGTATCATTGCTTGCAAGAGAAAAAATCCACATCCTGC	2520
N Y I K E L D R I I A C K R K N P T S C	
TCAAGGCGCTTCTACCAGCTCACCAGCTCCTGGACTCTGTGCACCTATTGCTCGAGAG	2580
S R A F Y Q L T K L L D S U Q P I A R E	
CTGCATCAGTTCACTTTTGACCTGCTAATCAAGTCCACATGGTGAGCGTGGACTTTCCA	2640
L H Q F T F D L L I K S H M U S U D F P	
GAAATGATGGCAGAAATCATCTCCGTGCAAGTGCCCAAGATTCTTTCTGGGAAGTCAAG	2700
E M M A E I I S U Q U P K I L S G K U K	

Figure 2 A

Canine	ATGGAGGTAC AGTTAGGGCT AGGAGGGGTC TACCCCTGGC CCGCGTCCAA GACCTATCGA	60
Human	ATGGAGGTGC AGTTAGGGCT GGGAGGGGTC TACCCCTGGC CCGCGTCCAA GACCTATCGA	60
Canine	GGAGCTTTCC AGAATCTGTT CCAAGAGTGTG CCGAAGTGA TCCAGAACCC GGGCCCCAGG	120
Human	GGAGCTTTCC AGAATCTGTT CCAAGAGTGTG CCGAAGTGA TCCAGAACCC GGGCCCCAGG	120
Canine	CACCCAGAGG CCGTGAAGCGC AGCACCCTCC GGTGCCATT T-----	161
Human	CACCCAGAGG CCGTGAAGCGC AGCACCCTCC GGTGCCATT TGTGTGTGTGT GCAAGCAGCAG	180
Canine	-----GCAAGCAGCA GCAAGCAGCAG CAGCAGCAGC AGGAGACCAAG TCCCTCAGCAG	210
Human	CAGCAGCAGC AGCAGCAGCA GCAAGCAGCAG CAGCAGCAGC AGGAGACTAG CCCCAG--G	237
Canine	CAGCAGCAGC AGCAGCAGGG TGAAGATGGC TCTCCCCAAG CCGAGAGCAG AGGCCCCACA	270
Human	CAGCAGCAGC AGCAGCAGGG TGAAGATGGT TCTCCCCAAG CCGATCGTAG AGGCCCCACA	297
Canine	GGCTACCTGG CTCTGGATGA GGAACAGCAG CCTTCCCAAC AGCGGTCAAC CTCCAGGGCC	330
Human	GGCTACCTGG TCCTGGATGA GGAACAGCAA CCTTCAACAG CCGAGTCCGC CCTGGAGTGC	357
Canine	CATCCGGAGA GTGCTTGGCT TCCAGAGCCT GGAGTGAATT GGGCAACCG CAGGGGGCTG	390
Human	CATCCGGAGA GAGGTGCGT CCAAGAGCCT GGAGCCGCG TGGCCGCCAG CAGGGGGCTG	417
Canine	CAGCAGCAGC AGCCAGCACC ACCGGACGAG ATGACTCAG CTGCCCCATC CACATTGTCA	450
Human	CCGAGCAGC TCCAGCACC TCCGGACGAG ATGACTCAG CTGCCCCATC CACATTGTCC	477
Canine	CTGCTGGGCC CCACTTTCCC GGGCTTAAGT AGCTGTTCCA CCGATTCTTA AGACATCCTG	510
Human	CTGCTGGGCC CCACTTTCCC GGGCTTAAGC AGCTGTTCCG CTGACTTAA AGACATCCTG	537
Canine	AGCGAGGGCTG GACCATGCA ACTCCTTCAG CAGCAGCGGC AGCAGCAGCA GCAGCAGCAG	570
Human	AGCGAGGGCA GACCATGCA ACTCCTTCAG CAGCAGCGC AG-----	579
Canine	CAACAGCAAC AGCAGCAGCA GCAGCAGCAA CAGCAGGAG TAGTATCAAG AGGTAGCAGC	630
Human	-----GAGG CAGTATCCA AGGCAGCAGC	603
Canine	AGCGGGAGAG CAGGGGAGGC CCGGGTGGT TCCACTCCT CCAAGGACAG TTACTAGGT	690
Human	AGCGGGAGAG CAGGGGAGGC CTCGGGGCT CCACTCCT CCAAGGACAA TTACTAGGG	663
Canine	GGCAGTTTCA CCATCTCGA CAGCGCCAAAG GAGTTGTGA AGGCAGTGTG GGTGTCCATG	750
Human	GGCAGTTTCA CCATTCTGA CAGCGCCAAAG GAGTTGTGA AGGCAGTGTG GGTGTCCATG	723
Canine	GGTTTGGGTG TGGAGGCAAT GGAACATCTG AGCCCTGGGG AACAGCTTCG GGGGGATTGT	810
Human	GGCTTGGGTG TGGAGGCAAT GGAACATCTG AGTCCAGGGG AACAGCTTCG GGGGGATTGT	783

Figure 2 B

Canine	ATGTACGCCC CACTCTG6G AGGTCCACCC GCGGTACG ----TCCTTG CCGTCCGCTG	864
Human	ATGTACGCCC CACTTTT6G AGTTCCACCC GCTGTGCGTC CCAGTCCTTG TGCCCCATTG	843
Canine	GCCGATGCA AAGGTTCTCT GCTGGATGAC GGCCTGGGCA AGGACACGA AGAACTGCT	924
Human	GCCGATGCA AAGGTTCTCT GCTAGACGAC AGCGAGGCA AGAGCACTGA AGATACTGCT	903
Canine	GATATTCCC CTTTCAGGC AGGTTATGCG AAGGGGTTGG ATGGGACAG CTTGGGCTGT	984
Human	GATATTCCC CTTTCAGGC AGGTTACACC AAGGGGCTAG AAGGCGAGAG CTTAGGCTGC	963
Canine	TCGAGCAGCA GTGAGCAGG GGGCTCCGA ACACTTGAGA TGCCATCCAC CCGTCTCTT	1044
Human	TCTGGCAGCG CTGAGCAGG GAGCTCCGG ACACTTGAGC TGCCGTCTAC CCGTCTCTC	1023
Canine	TACAGCTCTG GAGCACTAGA TGAGCGGCA GCCTATCAGA GTCGAGACTA CTACAACCTT	1104
Human	TACAGCTCCG GAGCACTGGA CGAGGCGGCT GCCTATCCAG GTCGCGACTA CTACAACCTT	1083
Canine	CCCTCTCCC TAGGCGGGCC GCTCCCCAT CCHCCACCT CCCATCTCA CACCGCATC	1164
Human	CCACTGGCTC TGGCGGGACC GCGCCCCCT CCGCCGCTC CCCATCCCA CCGTCGCATC	1143
Canine	AAGCTGGAAA ACCCTCTGGA CTATGGCAGC GCCTGGGCGG CTGCGCGGC ACAATGCCGC	1224
Human	AAGCTGGAGA ACCCGCTGGA CTAGGCGAGC GCCTGGGCGG CTGCGCGGC CAGTGGCGC	1203
Canine	TAGGGGATC TGGCGAGCCT GCACGGAGCG GGTGCGAGG GACCGAGTC GGGCTCACCT	1284
Human	TATGGGACC TGGCGAGCCT GCATGGGCG GGTGCGAGG GACCGGATC TGGGTCAACC	1263
Canine	TCGGCAGCA CTCTCTCTC CTGGCACACT CTCTTCACAG CAGAGGAGG CCAGTTGTAT	1344
Human	TCAGCCGCG CTCTCTCTC CTGGCACACT CTCTTCACAG CAGAGGAGG CCAGTTGTAT	1323
Canine	GG-----GC--C-CTGGGG	1356
Human	GGACCGTGTG GTGGTGGTGG GGGTGGTGGT GGCGGCGGCG GCGGCGGCGG CCGCGGCGG	1383
Canine	GGGAGTGGG GCGGCGGTG AGGCGAGCG ----GGGAT CTGTAGCCCC CTATGGCTAC	1410
Human	GGCGGCGGCG GCGGCGGCG GCGGCGGCG GAGGCGGAG CTGTAGCCCC CTAGGCTAC	1443
Canine	ACTCGGCCAC CTCAGGGAT GGCGGGTCAG GAAGGTGACT TCCCTCCACC TGATGTGTGG	1470
Human	ACTCGGCCCC CTCAGGGCT GGCGGGTCAG GAAGGTGACT TCACCGACC TGATGTGTGG	1503
Canine	TATCCGGGCG GTGTGGTGAG CAGAGTGCCC TTCCAGTC CTAGTTGTGT CAAAAGCGAG	1530
Human	TACCTTGGCG GCATGGTGAG CAGAGTGCCC TATCCAGTC CCAGTTGTGT CAAAAGCGAA	1563
Canine	ATGGGCTCTT GGAATGAGAG CTACTCCGGA CCTATGGGG ACATGCGTTT GGAGACTGCC	1590
Human	ATGGGCCCCT GGAATGAGAG CTACTCCGGA CCTATGGGG ACATGCGTTT GGAGACTGCC	1623

Figure 2 C

Canine	AGGGACCATG TTCTACCCAT TGACTATTAC TTTCCACCTC AGAGGACCTG TCTGATCTGC	1650
Human	AGGGACCATG TTCTACCCAT TGACTATTAC TTTCCACCTC AGAGGACCTG TCTGATCTGT	1683
Canine	GGTGATGAAG CTTCTGGCTG TCACTATGGA GCTCTCACAT GTGGAGGCTG CAAGGTCTTC	1710
Human	GGTGATGAAG CTTCTGGCTG TCACTATGGA GCTCTCACAT GTGGAGGCTG CAAGGTCTTC	1743
Canine	TTTAAAGAG CCCTGAGG GAAACAGAG TACCTGTGCG CCAGCAGAAA TGATTGTACC	1770
Human	TTTAAAGAG CCCTGAGG GAAACAGAG TACCTGTGCG CCAGCAGAAA TGATTGTACT	1803
Canine	ATCGATAAT TCCGAGGGA AAATTGTCCA TCTTGTGCGC TCCGGAATG CTATGAAGCA	1830
Human	ATCGATAAT TCCGAGGGA AAATTGTCCA TCTTGTGCGC TCCGGAATG TTATGAAGCA	1863
Canine	GGGATGACTC TGGGAGCCCG GAAGCTGAAG AACTTGGGA ATCTGAAGT ACAGAGGGA	1890
Human	GGGATGACTC TGGGAGCCCG GAAGCTGAAG AACTTGGGA ATCTGAAGT ACAGAGGGA	1923
Canine	GGAGAGGCTT CCAATGT CAC CAGCCCCACT GAGGAGCCAA CCCAGAGCT GACGTGTCA	1950
Human	GGAGAGGCTT CCAAGCCAC CAGCCCCACT GAGGAGCCAA CCCAGAGCT GACGTGTCA	1983
Canine	CACATTGAAG GCTATGAATG TCAGCCCATC TTTCTGAATG TCCTTGAGC CATGAGCCA	2010
Human	CACATTGAAG GCTATGAATG TCAGCCCATC TTTCTGAATG TCCTTGAGC CATGAGCCA	2043
Canine	GGCTGGTGT GTGCTGGACA TGACACACAC CAGCCCAGCT CTTTGCAGC CTTGCTCTCT	2070
Human	GGCTGGTGT GTGCTGGACA TGACACACAC CAGCCCAGCT CTTTGCAGC CTTGCTCTCT	2103
Canine	AGCCTTAATG AATTGGGTGA AAGGAGCTT GTACATGTGG TCAAGTGGG CAGGCTTG	2130
Human	AGCCTTAATG AACTGGGTGA AAGGAGCTT GTACATGTGG TCAAGTGGG CAGGCTTG	2163
Canine	CCGGCTTCC GCACCTTACA CGTGGATGAC CAGATGGCA G TCATTCACTA CTCCTGGATG	2190
Human	CCGGCTTCC GCACCTTACA CGTGGATGAC CAGATGGCA G TCATTCACTA CTCCTGGATG	2223
Canine	GGGCTCATGG TGTGTCAT 666CTGGCGA TCCTTCACCA ATGTCACTC CAGGATGCTC	2250
Human	GGGCTCATGG TGTGTCAT 666CTGGCGA TCCTTCACCA ATGTCACTC CAGGATGCTC	2283
Canine	TACTTCGCC CTGACTGGT TTTCAATGAG TACCGCATGC ACAAGTCCC GATGTACAGC	2310
Human	TACTTCGCC CTGACTGGT TTTCAATGAG TACCGCATGC ACAAGTCCC GATGTACAGC	2343
Canine	CAGTGTGTCC GAATGAGGCA CCTCTCTCAA GAATTTGGAT GGCTCCAAAT CACCCCGCAG	2370
Human	CAGTGTGTCC GAATGAGGCA CCTCTCTCAA GAATTTGGAT GGCTCCAAAT CACCCCGCAG	2403
Canine	GAATTTTGT GCATGAAGGC GCTGCTGCTA TTCAGCATT TCCAGTGGG TGGGCTGAAA	2430
Human	GAATTTTGT GCATGAAGGC GCTGCTGCTA TTCAGCATT TCCAGTGGG TGGGCTGAAA	2463

2

Canine	AATCAAAAT TCTTTGATGA ACTTCGAATG AACTACATCA AGGAACCTGA TCGTATCATT	2490
Human	AATCAAAAT TCTTTGATGA ACTTCGAATG AACTACATCA AGGAACCTGA TCGTATCATT	2523
Canine	GCCTGCAGGA GAAAAATCC CACATCCTGC TCAAGGCGCT TCTACCAAGCT CACCAAGCTC	2550
Human	GCCTGCAGGA GAAAAATCC CACATCCTGC TCAAGGCGCT TCTACCAAGCT CACCAAGCTC	2583
Canine	CTGGACTCTG TGCACCTAT TGCCTGAGAG CTGCATCAGT TCACCTTTGA CCTGCTAATC	2610
Human	CTGGACTCTG TGCACCTAT TGCCTGAGAG CTGCATCAGT TCACCTTTGA CCTGCTAATC	2643
Canine	AAGTCCACAC TGGTGAGCGT GGACTTTCCA GAATGATGG CAGAGATCAT CTCCTGTGCA	2670
Human	AAGTCCACAC TGGTGAGCGT GGACTTTCCA GAATGATGG CAGAGATCAT CTCCTGTGCA	2703
Canine	GTGCCCAGGA TTCTTTCTGG GAAAGTCAG CCCATCTATT TCCACACCCA GTGA	2724
Human	GTGCCCAGGA TTCTTTCTGG GAAAGTCAG CCCATCTATT TCCACACCCA GTGA	2757

Figure 3 A

Canine	MEUQLGLGRV	YPRPPSKTYR	GAQNLFQSV	REIQNPGRP	HPEARSAAPP	GAHL	---QQQ	57
Human	MEUQLGLGRV	YPRPPSKTYR	GAQNLFQSV	REIQNPGRP	HPEARSAAPP	GASLL	LLQQQ	60
Chimpanzee	MEUQLGLGRV	YPRPPSKTYR	GAQNLFQSV	REIQNPGRP	HPEARSAAPP	GASLL	LLQQQ	60
Macaque	MEUQLGLGRV	YPRPPSKTYR	GAQNLFQSV	REIQNPGRP	HPEARSAAPP	GAHL	-----	54
Lemur	MEUQLGLGRV	YPRPPSKTYR	GAQNLFQSV	REIQNPGRP	HPEARSAAPP	GAHL	-----	54
Rat	MEUQLGLGRV	YPRPPSKTYR	GAQNLFQSV	REIQNPGRP	HPEARSAAPP	GAHL	-----	54
Mouse	MEUQLGLGRV	YPRPPSKTYR	GAQNLFQSV	REIQNPGRP	HPEARSAAPP	GAHL	-----	54
Canine	QQQQQQQE--	----T---SP	RQQQQQ-QQG	EDGSPQARSR	GPTGYLALDE	EQQPSQARSA		107
Human	QQQQQQQQQQ	QQQQE---TS	PRQQQQ-QQG	EDGSPQAHAR	GPTGYLALDE	EQQPSQARSA		116
Chimpanzee	QQQQQQQQQQ	QQQQQQQQET	SPRQQQ-QQG	EDGSPQAHAR	GPTGYLALDE	EQQPSQARSA		119
Macaque	-----QQ	QQQQQQETSP	RQQQQQ-QQG	EDGSPQAHAR	GPTGYLALDE	EQQPSQARSA		105
Lemur	-----	QQQQE---TS	PPQQQQQQQG	EDGSPQARSR	GPTGYLALDE	EQQPSQARSA		101
Rat	-----	QQRQE---TS	PRARRRQOHP	EDGSPQAHAR	GPTGYLALDE	EQQPSQARSA		101
Mouse	-----	QQRQE---TS	PRARRRQOHT	EDGSPQAHAR	GPTGYLALDE	EQQPSQARSA		101
Canine	SKGHPEAGCV	PEPGUTSATG	KGLPQQPPAP	PDQDSARPS	TLSELLGPTFP	GLSSCSADLK		167
Human	LECHPERGCV	PEPGRAUARS	KGLPQQPPAP	PDQDSARPS	TLSELLGPTFP	GLSSCSADLK		176
Chimpanzee	PECHPERGCV	PEPGRAUARS	KGLPQQPPAP	PDQDSARPS	TLSELLGPTFP	GLSSCSADLK		179
Macaque	PECHPERGCV	PEPGRAUARS	KGLPQQPPAP	PDQDSARPS	TLSELLGPTFP	GLSSCSADLK		165
Lemur	LECHPEAGCV	PEPGRAUARS	KGLPQQPPAP	PDQDSARPS	TLSELLGPTFP	GLSSCSADLK		161
Rat	SEGHPEAGCV	PEPGRAUARS	KGLPQQPPAP	PDQDSARPS	TLSELLGPTFP	GLSSCSADLK		161
Mouse	SEGHPEAGCV	PEPGRAUARS	KGLPQQPPAP	PDQDSARPS	TLSELLGPTFP	GLSSCSADLK		161
Canine	DILSEAGTMQ	LLQQQRQQQQ	QQQQQQQQQQ	QQQQQEVUSE	GSSSGARARA	AGAPTSSKDS		227
Human	DILSEAGTMQ	LL-----	-----	QQQQQEVUSE	GSSSGARARA	AGAPTSSKDN		218
Chimpanzee	DILSEAGTMQ	LLQQQQQE--	-----	-----AUSE	GSSSGARARA	AGAPTSSKDN		221
Macaque	DILSEAGTMQ	LL-----	-----	QQQQQEVUSE	GSSSGARARA	AGAPTSSKDN		207
Lemur	DILSEAGTMQ	LL-----	-----	QQQQQEVUSE	GSSSGARARA	AGAPTSSKDS		203
Rat	DILSEAGTMQ	LLQQQQQQ--	QQQQQQQQQQ	QQQQQEVUSE	GSSSGARARA	AGAPTSSKDS		219
Mouse	DILSEAGTMQ	LLQQQQQQQQ	HQQQHQQHQQ	QQE---VISE	GSSSGARARA	AGAPTSSKDS		217
Canine	YLGGTSTISD	SAKELCKAUS	USMGLGVEAL	EHLSPGEQLR	GDCMYAPLLG	GPPAUR--PC		285
Human	YLGGTSTISD	SAKELCKAUS	USMGLGVEAL	EHLSPGEQLR	GDCMYAPLLG	GPPAURPTPC		278
Chimpanzee	YLGGTSTISD	SAKELCKAUS	USMGLGVEAL	EHLSPGEQLR	GDCMYAPLLG	GPPAURPTPC		281
Macaque	YLGGTSTISD	SAKELCKAUS	USMGLGVEAL	EHLSPGEQLR	GDCMYAPLLG	GPPAURPTPC		267
Lemur	YLGGTSTISD	SAKELCKAUS	USMGLGVEAL	EHLSPGEQLR	GDCMYAPLLG	GPPAURPTPC		263
Rat	YLGGTSTISD	SAKELCKAUS	USMGLGVEAL	EHLSPGEQLR	GDCMYAPLLG	GPPAURPTPC		279
Mouse	YLGGTSTISD	SAKELCKAUS	USMGLGVEAL	EHLSPGEQLR	GDCMYAPLLG	GPPAURPTPC		277
Canine	APLAECKGSL	LDDGPGKSTE	ETREYSPFKG	GYAKGLEGES	LGCSGSSEAG	SSGTLEIPST		345
Human	APLAECKGSL	LDDGPGKSTE	ETREYSPFKG	GYAKGLEGES	LGCSGSSEAG	SSGTLEIPST		338
Chimpanzee	APLAECKGSL	LDDGPGKSTE	ETREYSPFKG	GYAKGLEGES	LGCSGSSEAG	SSGTLEIPST		341
Macaque	APLAECKGSL	LDDGPGKSTE	ETREYSPFKG	GYAKGLEGES	LGCSGSSEAG	SSGTLEIPST		327
Lemur	APLAECKGSL	LDDGPGKSTE	ETREYSPFKG	GYAKGLEGES	LGCSGSSEAG	SSGTLEIPST		323
Rat	APLAECKGSL	LDDGPGKSTE	ETREYSPFKG	GYAKGLEGES	LGCSGSSEAG	SSGTLEIPST		339
Mouse	APLAECKGSL	LDDGPGKSTE	ETREYSPFKG	GYAKGLEGES	LGCSGSSEAG	SSGTLEIPST		337

Figure 3 B

Canine	LSLYKSGALD	ERAAVQSRDY	YNFPLSLGG	-PPPPPPPH	PHTRIKLENP	LDYGSAAWAA	403
Human	LSLYKSGALD	ERAAVQSRDY	YNFPLALAG	-PPPPPPPH	PHARIKLENP	LDYGSAAWAA	396
Chimpanzee	LSLYKSGALD	ERAAVQSRDY	YNFPLALAGP	PPPPPPPH	ARIKL--ENP	LDYGSAAWAA	399
Macaque	LSLYKSGALD	ERAAVQSRDY	YNFPLALAGP	PPPPPPPH	ARIKL--ENP	LDYGSAAWAA	385
Lemur	LSLYKSGALE	ERAAVQSRDY	YNFPLALAGP	PPPPPPPH	ARIKL--ENP	LDYGSAAWAA	381
Rat	LSLYKSGAUD	ERAAVQSRDY	YNFPLALSGP	PHPPPPTHPH	ARIKL--ENP	SDYGSAAWAA	397
Mouse	LSLYKSGALD	ERAAVQSRDY	YNFPLALSGP	PHPPPPTHPH	ARIKL--ENP	LDYGSAAWAA	395

Canine	AAQCRMGDLA	SLHGAGAGP	SGSGPSAATS	SSWHTLFTAE	EGQLYGPCGG	SGGGSGAGGG	463
Human	AAQCRMGDLA	SLHGAGAGP	SGSGPSAARS	SSWHTLFTAE	EGQLYGPCGG	GGGGGGGGGG	456
Chimpanzee	AAQCRMGDLA	SLHGAGAGP	SGSGPSAARS	SSWHTLFTAE	EGQLYGPC--	-----GG	449
Macaque	AAQCRMGDLA	SLHGAGAGP	SGSGPSAARS	SSWHTLFTAE	EGQLYGPC--	-----G	434
Lemur	AAQCRMGDLA	SLHGAGAGP	SGSGPSAARS	SSWHTLFTAE	EGQLYGPC--	-----G	430
Rat	AAQCRMGDLA	SLHGGSUAGP	STGSPPATAS	SSWHTLFTAE	EGQLYGPC--	-----G	445
Mouse	AAQCRMGDLG	SLHGGSUAGP	STGSPPATTS	SSWHTLFTAE	EGQLYGPC--	-----G	443

Canine	-----	-----SU	APYGYTRPPQ	GLAQEGDFT	PPDUWYPGGU	USRUPMPSPS	505
Human	GGGGGGGGGG	GGGGGERAV	APYGYTRPPQ	GLAQEGDFT	APDUWYPGGU	USRUPMPSPS	516
Chimpanzee	GGGGGGGGGG	GGGGGERAV	APYGYTRPPQ	GLAQEGDFT	APDUWYPGGU	USRUPMPSPS	509
Macaque	-GGGGGGGGG	GGGAGERAV	APYGYTRPPQ	GLAQEGDFT	APDUWYPGGU	USRUPMPSPS	493
Lemur	-GGGGG----	---TSEAGAV	TPYGYTRPPQ	GLAQEGDFT	APDUWYPGGU	USRUPMPSPS	482
Rat	-GGGGG----	-SSPSDAGPU	APYGYTRPPQ	GLAQEGDFT	ASEUWYPGGU	UNRUPMPSPS	499
Mouse	-GGGGG----	-SSPSDAGPU	APYGYTRPPQ	GLTSQESDYS	ASEUWYPGGU	UNRUPMPSPN	497

Canine	CUKSEMGPM	DSYSGPYGDM	ALETARDHUL	PIDYYFPPQK	TCLICGDEAS	GCHYGALTCG	565
Human	CUKSEMGPM	DSYSGPYGDM	ALETARDHUL	PIDYYFPPQK	TCLICGDEAS	GCHYGALTCG	576
Chimpanzee	CUKSEMGPM	DSYSGPYGDM	ALETARDHUL	PIDYYFPPQK	TCLICGDEAS	GCHYGALTCG	569
Macaque	CUKSEMGPM	DSYSGPYGDM	ALETARDHUL	PIDYYFPPQK	TCLICGDEAS	GCHYGALTCG	553
Lemur	CUKSEMGPM	DSYSGPYGDM	ALETARDHUL	PIDYYFPPQK	TCLICGDEAS	GCHYGALTCG	542
Rat	CUKSEMGPM	ENYSGPYGDM	ALDSTARDHUL	PIDYYFPPQK	TCLICGDEAS	GCHYGALTCG	559
Mouse	CUKSEMGPM	ENYSGPYGDM	ALDSTARDHUL	PIDYYFPPQK	TCLICGDEAS	GCHYGALTCG	557

Canine	SCKUFFKRAA	EGKQKYLCA	ANDCTIDKFA	RKNCPSCALA	KCYEAGMTLG	ARKLKKLGNL	625
Human	SCKUFFKRAA	EGKQKYLCA	ANDCTIDKFA	RKNCPSCALA	KCYEAGMTLG	ARKLKKLGNL	636
Chimpanzee	SCKUFFKRAA	EGKQKYLCA	ANDCTIDKFA	RKNCPSCALA	KCYEAGMTLG	ARKLKKLGNL	629
Macaque	SCKUFFKRAA	EGKQKYLCA	ANDCTIDKFA	RKNCPSCALA	KCYEAGMTLG	ARKLKKLGNL	613
Lemur	SCKUFFKRAA	EGKQKYLCA	ANDCTIDKFA	RKNCPSCALA	KCYEAGMTLG	ARKLKKLGNL	602
Rat	SCKUFFKRAA	EGKQKYLCA	ANDCTIDKFA	RKNCPSCALA	KCYEAGMTLG	ARKLKKLGNL	619
Mouse	SCKUFFKRAA	EGKQKYLCA	ANDCTIDKFA	RKNCPSCALA	KCYEAGMTLG	ARKLKKLGNL	617

Canine	KLQEEGERSS	UTSPTEETTQ	KL TUSHIEGY	ECQIFLNUL	ERIEPGUCCA	GHONNQPDSE	685
Human	KLQEEGERSS	TTSPTEETTQ	KL TUSHIEGY	ECQIFLNUL	ERIEPGUCCA	GHONNQPDSE	696
Chimpanzee	KLQEEGERSS	TTSPTEETTQ	KL TUSHIEGY	ECQIFLNUL	ERIEPGUCCA	GHONNQPDSE	689
Macaque	KLQEEGERSS	TTSPTEETTQ	KL TUSHIEGY	ECQIFLNUL	ERIEPGUCCA	GHONNQPDSE	673
Lemur	KLQEEGERSS	ATSPTEESSQ	KL TUSHIEGY	ECQIFLNUL	ERIEPGUCCA	GHONNQPDSE	662
Rat	KLQEEGERSS	AGSPTEEDPSQ	KL TUSHIEGY	ECQIFLNUL	ERIEPGUCCA	GHONNQPDSE	679
Mouse	KLQEEGERSS	AGSPTEEDPSQ	KL TUSHIEGY	ECQIFLNUL	ERIEPGUCCA	GHONNQPDSE	677

Figure 3 C

Canine	AALLSSLNEL	GERQLVHVK	WAKALPGFRN	LHVDQMAVI	QYSWMGLMUF	AMGWRASFTNU	745
Human	AALLSSLNEL	GERQLVHVK	WAKALPGFRN	LHVDQMAVI	QYSWMGLMUF	AMGWRASFTNU	756
Chimpanzee	AALLSSLNEL	GERQLVHVK	WAKALPGFRN	LHVDQMAVI	QYSWMGLMUF	AMGWRASFTNU	749
Macaque	AALLSSLNEL	GERQLVHVK	WAKALPGFRN	LHVDQMAVI	QYSWMGLMUF	AMGWRASFTNU	733
Lemur	AALLSSLNEL	GERQLVHVK	WAKALPGFRN	LHVDQMAVI	QYSWMGLMUF	AMGWRASFTNU	722
Rat	AALLSSLNEL	GERQLVHVK	WAKALPGFRN	LHVDQMAVI	QYSWMGLMUF	AMGWRASFTNU	739
Mouse	AALLSSLNEL	GERQLVHVK	WAKALPGFRN	LHVDQMAVI	QYSWMGLMUF	AMGWRASFTNU	737

Canine	NSRMLYFAPD	LUFNEYAMHK	SAMYSQCVRM	RHLSQEFGL	QITPQEFCLM	KALLLFSIIP	805
Human	NSRMLYFAPD	LUFNEYAMHK	SAMYSQCVRM	RHLSQEFGL	QITPQEFCLM	KALLLFSIIP	816
Chimpanzee	NSRMLYFAPD	LUFNEYAMHK	SAMYSQCVRM	RHLSQEFGL	QITPQEFCLM	KALLLFSIIP	809
Macaque	NSRMLYFAPD	LUFNEYAMHK	SAMYSQCVRM	RHLSQEFGL	QITPQEFCLM	KALLLFSIIP	793
Lemur	NSRMLYFAPD	LUFNEYAMHK	SAMYSQCVRM	RHLSQEFGL	QITPQEFCLM	KALLLFSIIP	782
Rat	NSRMLYFAPD	LUFNEYAMHK	SAMYSQCVRM	RHLSQEFGL	QITPQEFCLM	KALLLFSIIP	799
Mouse	NSRMLYFAPD	LUFNEYAMHK	SAMYSQCVRM	RHLSQEFGL	QITPQEFCLM	KALLLFSIIP	797

Canine	VDGLKNQKFF	DELMNYIKE	LDRIIACKRK	NPTSCSRAFY	QLTKLLDSVQ	PIARELHQFT	865
Human	VDGLKNQKFF	DELMNYIKE	LDRIIACKRK	NPTSCSRAFY	QLTKLLDSVQ	PIARELHQFT	876
Chimpanzee	VDGLKNQKFF	DELMNYIKE	LDRIIACKRK	NPTSCSRAFY	QLTKLLDSVQ	PIARELHQFT	869
Macaque	VDGLKNQKFF	DELMNYIKE	LDRIIACKRK	NPTSCSRAFY	QLTKLLDSVQ	PIARELHQFT	853
Lemur	VDGLKNQKFF	DELMNYIKE	LDRIIACKRK	NPTSCSRAFY	QLTKLLDSVQ	PIARELHQFT	842
Rat	VDGLKNQKFF	DELMNYIKE	LDRIIACKRK	NPTSCSRAFY	QLTKLLDSVQ	PIARELHQFT	859
Mouse	VDGLKNQKFF	DELMNYIKE	LDRIIACKRK	NPTSCSRAFY	QLTKLLDSVQ	PIARELHQFT	857

Canine	FDLLIKSHMU	SUDFPEMMAE	IISUQPKIL	SGKUKPIVFH	TQ		907
Human	FDLLIKSHMU	SUDFPEMMAE	IISUQPKIL	SGKUKPIVFH	TQ		918
Chimpanzee	FDLLIKSHMU	SUDFPEMMAE	IISUQPKIL	SGKUKPIVFH	TQ		911
Macaque	FDLLIKSHMU	SUDFPEMMAE	IISUQPKIL	SGKUKPIVFH	TQ		895
Lemur	FDLLIKSHMU	SUDFPEMMAE	IISUQPKIL	SGKUKPIVFH	TQ		884
Rat	FDLLIKSHMU	SUDFPEMMAE	IISUQPKIL	SGKUKPIVFH	TQ		901
Mouse	FDLLIKSHMU	SUDFPEMMAE	IISUQPKIL	SGKUKPIVFH	TQ		899